



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,231	06/19/2003	Mingxi Fan	030318	9806
23696 7590 12/05/2007 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121			EXAMINER HYUN, SOON D	
			ART UNIT 2616	PAPER NUMBER
			NOTIFICATION DATE 12/05/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
kascanla@qualcomm.com
nanm@qualcomm.com

Office Action Summary	Application No. 10/600,231	Applicant(s) FAN ET AL.	
	Examiner Soon D. Hyun	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-24 and 35-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 12, 14, 15, 22, 24, 35-39, 46 and 48 is/are rejected.
- 7) ☒ Claim(s) 4-11, 16-21, 23, 40-45 and 47 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 12 is objected to because of the following informalities:

In line 4, the acronym "the ROT" should be spelled out as -- a rise-over-thermal (ROT) -- to avoid lack of antecedent basis.

Appropriate correction is required.

Response to Arguments

2. Applicant's arguments with respect to claims 1-3, 12, 14, 15, 22, 24, and 35-39 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-3, 12-15, 22, 24, 35-39, and 46 rejected under 35 U.S.C. 103(a) as being unpatentable over Al-Housami (US Patent No. 7,050,814).

Regarding claims 1 and 12, Al-Housami discloses a base transceiver station apparatus (a Base transceiver Station, BTS 18 in FIG. 1) comprising:

means for receiving data in a plurality of packets (data traffic, col. 2, line 41) from a plurality of access terminals (mobile users 30, 32 in FIG. 1); and

means for dynamically setting a rise-over-thermal (ROT) threshold (a loading threshold based on measures for interference level above a noise floor, col. 2, lines 23-32, col. 3, lines 11-35) for the access terminals.

However, Al-Housami does not explicitly teach the step of increasing the ROT threshold by a predetermined increment if the outage has not occurred and the step of decreasing the ROT threshold by a predetermined decrement if the outage has occurred as recited in claim.

In the mean time, Al-Housami further teaches that the loading threshold is dynamically selected, i.e., the loading threshold is increased when data traffic users higher than voice traffic users and decreased when the voice traffic users are higher than the data traffic users to lower outages of communication (col. 3, lines 26-60).

Those of skill in the art would appreciate that the Al-Housami would check outage of communication instead of checking the traffic users to determine the loading

threshold to lower outages of communication (to lower blocking or dropping of communication).

Therefore, it would have been obvious to one having ordinary skill in the art to incorporate a method of determining outage of communication into Al-Housami to determine the loading threshold dynamically, i.e. whether the loading level is increased when outage of communication is not occurred and decreased when the outage is occurred.

Regarding claims 2 and 14, Al-Housami does not teach a reverse activity bit (RAB) as recited in claims, but the RAB is known in the art to control mobile terminals. Therefore, it would have been obvious to one having ordinary skill in the art to use the RAB if the outage has occurred.

Regarding claims 3 and 15, Al-Housami does not teach initially setting loading threshold to a predetermined minimum threshold. But it is known in the art the threshold has a range between a minimum value and a maximum value.

Therefore, it would have been obvious to one having ordinary skill in the art to initially set the loading threshold to a predetermined minimum value such that the threshold has flexibility.

Regarding claim 22, it would have been obvious to one having ordinary skill in the art to determine whether the outage has occurred based on more than one terminals to get more reliable statistics for the outage.

Regarding claim 24, refer to the discussion for claim 1.

However, Al-Housami does not explicitly teach that computer readable medium is executing the method.

It would have been obvious to one having ordinary skill in the art to incorporate computer readable medium (software) for the method to take advantage of using the software (programmable).

Regarding claims 35, 36, 48, refer to the discussion for claims 1, 12, 24, but Al-Housami does not explicitly teach a detail structure of the BTS. It is inherent that the BTS has a processor for executing the software, at least one antenna and an input and inputs and outputs coupled to each other as recited in claim to implement the method.

Regarding claims 37 and 46, refer to the discussion for claims 1, 12, 13, and 24.

It would have been obvious to one having ordinary skill in the art to determine whether the outage has occurred on more than one terminals to get more reliable statistics for the outage.

Regarding claim 38, refer to the discussion for claims 1, 2, 12, and 24.

Regarding claim 39, refer to the discussion for claims 1, 3, 12, and 24.

Allowable Subject Matter


5. Claims 4-11, 16-21, 23, 40-45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Soon D. Hyun whose telephone number is 571-272-3121. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


S. Hyun
11/27/2007


CHI PHAM
SUPERVISORY PATENT EXAMINER

11/30/07